

UNITED STATES DEPARTMENT OF AGRICULTURE
Extension Service
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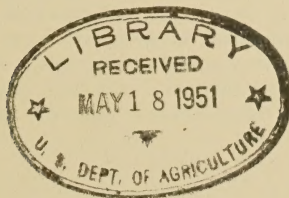
REPORT OF
LABOR UTILIZATION CONFERENCE

Washington, D. C. - March 7-9, 1951

This report was prepared for the use of State Extension Services in considering the further development of educational work to improve the utilization of labor. It contains the suggestions of a group of 17 representatives from the States who met for 3 days in Washington, D. C., with a similar group representing various agencies in the U.S.D.A.

The conference was exploratory in nature for the purpose of informally discussing the labor and manpower situation and desirable kinds of Extension activities in this field. The report summarizes what might be done concerning (1) labor efficiency on the farm, (2) efficient utilization of seasonal labor, (3) labor efficiency in marketing and distribution.

The group recommended that the Directors of Extension consider arranging for a review of these findings by inter-departmental committees or other appropriate groups in each State for the purpose of developing a program in line with local problems and resources for doing the work.



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State Representatives Attending Labor
Utilization Conference

L. H. Brown	Michigan
G. B. Byers	Kentucky
Alvin Carpenter	Utah
James B. Fawcett	New Jersey
H. G. Hamilton	Florida
Carl Hancock	Arkansas
E. K. Hanks	New York
L. S. Hardin	Indiana
H. B. Howell	Iowa
A. V. Krewatch	Maryland
S. C. McIntire	Maine
W. G. Myers	Maryland
P. L. Putnam	Connecticut
Fred Sloan	North Carolina
Kenneth Treanor	Georgia
Harold Ward	Ohio
L. B. Wilkins	Virginia

Meeting with the above group were consultants from:

Agricultural Research Administration
Bureau of Agricultural Economics
Farm Credit Administration
Federal Extension Service
Production and Marketing Administration
United States Employment Service.

I. Report of Committee on Labor Utilization on the Farm

A. The Situation

Extension Services are confronted with the opportunity to make an important contribution to a high level of agricultural production and efficient utilization of labor. The following assumptions as to the situation seem warranted and pertinent:

1. The need for high-level production and for efficiency of labor may continue to exist for a number of years.
2. A decrease in the total farm labor force resulting from competition from industry and demands of the armed forces.
3. An increase in the average age of farm operators, and increasing dependence on women and children as a part of the farm labor force.
4. Existence of under-employed persons in rural areas.
5. A high level of farm mechanization.
6. A high level of farm technology.
7. A decreased rate in the manufacture of farm equipment and supplies, resulting from a transfer of materials to military production.

B. Methods of Meeting the Situation

1. Strengthen Extension educational programs to assist farmers in improving the organization of their business: Many farm businesses are still running in "low" or "second gear." Extension teaching in this field can help many farmers shift into at least the next higher gear. Some of the ways in which farmers are being assisted and may be further assisted in this field are as follows:

- a. Help determine and attain an economical size of business.
- b. Selection of crops and the maintenance of a level of production consistent with good land use, mechanization, and production practices.
- c. Selection of livestock enterprises consistent with supplies of labor, feed and other production factors.
- d. Selection of kinds of machinery, facilities, and improvements to fit the farm business.

Extension programs such as balanced farming, farm planning, farm and home planning, and farm and home development can serve as guide-posts for further developing this kind of education. The goal of work in this field should not be to plan the farm business for the individual farmer, but to teach him the principles of decision making in managing the farm so that he can better use the resources of land, labor and capital he is able to control. Similar principles apply in the management of the home.

Outlook programs should give increasing attention to the labor outlook and situation, and to farm-management implications of the labor outlook. Increased effort should be made to acquaint all members of State and county staffs with these management principles so that they will incorporate them in their teaching programs as they work on various segments of the farm business and farm living.

Every known method of teaching the individual farmer and his family should be used to teach and demonstrate the possibilities of maximum efficient production and good living through this approach.

An effort should be made to assist under-employed persons in rural areas in appraising opportunities for more productive employment. This is a long-time educational problem. However, a strong extension program in improved organization of the farm business can be expected to be of material help in such an appraisal. This may be especially helpful in the period of years ahead.

2. Stress the labor economy potential of recommended farm practices: Just as improved farm organization can result in material increases in output per worker, expanded use of proven production practices (fertilization, cultivation, animal nutrition, etc.) has a similar potential. Extension teachers should recognize that optimum production practices vary with the situation and resources of individual farmers. Alternative production practices should be presented. Then assistance should be given the farmer as he selects the best practices for his situation. This essentially involves continuation of present extension programs. The labor accomplishment implications of different practices, however, should be given increased emphasis. Production practices are involved in Farm Organization (above) and in Work Simplification (below.) The intent here is to emphasize their importance.

3. Help farmers get their work done easier, quicker, with greater safety, and more effectively through work simplification teaching: Involved here are essentially the techniques of systematic work simplification research and teaching. Accumulated experience in many States during the past 8 years demonstrates that farm work can be made easier, more effective and economical by such systematic analysis. To help farmers analyze and improve their own work methods, Extension workers should:

- a. Determine essential farm jobs (processes, operations) in need of improvement. This is in part a research task and in part a chore for thoughtful Extension specialists in all subject matter areas. Local farm committees can give helpful suggestions in this area.
- b. Determine and describe different ways of doing these essential jobs. This involves accumulation of systematic research results, case studies, farm experience, observation, tours, use of movies, etc.
- c. Help farmers to evaluate the different available ways of doing the above jobs and aiding operators in selecting effective, economical work methods, equipment and facilities for their situation and environment. Deciding among alternatives is always difficult. But the advantages and disadvantages of different work methods can be described in terms of cost, ease, capital required, travel, time-liness, accomplishments, flexibility, etc. Available research data often need to be expanded to provide suitable input-output data for this purpose.

- d. Encourage farmers to apply the improved method selected. Here a demonstration may be almost essential. Frequently, leading farmers, professional farm managers, or college farms will make the initial step. Few entirely new work methods should be broadly recommended prior to at least some testing.
- e. Examine each work method from the point of view of safety.

To facilitate the above program, the following immediate action is recommended:

- a. A bibliography of available research results in the areas of farm work simplification should be prepared. Perhaps a tentative bibliography can be prepared by the Federal Extension Service, this list distributed to the States for additions and suggestions, then a comprehensive bibliography prepared and distributed.
- b. Extension specialists at the State colleges should incorporate principles of labor economy and suggestions for more effective labor utilization into their teaching program.

4. Recognize the importance of good labor relations: A number of labor problems common on farms are essentially problems of labor relations, although they are not always recognized as such. Such problems often exist within the farm family, between farmers and hired employees, and between farm operators and share-croppers. Such problems also exist in some types of landlord-tenant relationships. Good labor relations have much to do with output per unit of labor on farms.

Much has been learned through research by private and public institutions which has proved to be of value in improving labor relations. Below are listed some suggestions, based on research in this field, which have been applied successfully by farmers in solving labor relations problems:

a. Physical and Financial Considerations:

- (1) Pay good wages for good work.
- (2) Provide adequate living quarters.
- (3) Plan work carefully and keep workers informed of jobs ahead.
- (4) Teach workers to do jobs well and safely with least effort.
- (5) Work reasonable hours but do not lead workers to expect to work only a given number of hours regardless of season or job.
- (6) Allow vacation with pay and designated days off.
- (7) Stress work safety and accident prevention.
- (8) Carry insurance against risks of injury to workers.

b. Psychological Considerations:

- (1) Be sure worker appreciates value of perquisites.

- (2) Make worker feel like a part of a successful enterprise.
- (3) Retain right to discharge workers on reasonable notice. Have clear understanding regarding notice expected by either party.
- (4) Provide workable incentives to encourage long tenure and care in performing work.
- (5) Avoid agreements and bonus systems that interfere with good management of the farm.
- (6) Give worker credit for doing a good job - be tolerant when mistakes are made.
- (7) Encourage worker to make decisions within his responsibility and capability.

Such subjects can often be appropriately worked into general meetings to advantage. This is a practical way of dealing with a number of troublesome labor problems on farms.

C. Further Research Needed

1. On improved organization of the farm business:

- a. Further research on means of increasing the productivity of under-employed farm people in their present situations or by shifting to work on more productive farms or into non-farm employment.
- b. Further research on input-output relationships under varying farm resource patterns, especially for use in determining size of farms and farm enterprises for which various equipment and machines are economically justified.
- c. Rates of substitution between labor and equipment need to be established through wider ranges.
- d. Research on joint use of privately owned farm machines would throw light on machinery utilization problems.

2. On doing farm jobs more efficiently:

- a. Effective methods of doing major farm jobs with less time and human energy.
- b. Mechanization of jobs now done by hand.
- c. Crew organization in important jobs done by combinations of men and machines.
- d. Reducing time and number of men required to attach machines to power units and detach them.
- e. Buildings designed with greater emphasis on utility and flexibility of use.

3. On labor relations:

- a. Reasons for turnover of farm laborers and means of reducing human and economic losses resulting from it.
- b. Methods of payment for farm labor, including incentive programs and conditions of employment to help in increasing the efficiency and stability of tenure of farm workers.
- c. Comparative real wages of rural and urban workers.
- d. Desirable adjustments in leasing arrangements to permit and encourage improvements in the farm business.

II. Report of Committee on the Efficient
Utilization of Seasonal Hired Labor

A. Scope of Report

This discussion is concerned with opportunities for educational work on problems of efficiently utilizing the labor of seasonal and migrant workers from both domestic and off-shore sources. Emphasis is placed on labor coming from outside the area, although many of the suggestions would also apply to local seasonal labor.

B. Extension Educational Activities

1. Information on the situation and outlook:

- a. Inform farmers of the general farm labor demand and supply situation as a part of regular outlook work.
- b. Wherever possible develop local outlook type information on trends in farming systems, labor requirements, and local labor supplies that will help farmers of a producing area better judge the need for supplemental labor from outside sources.
- c. Inform both growers and workers regarding the normal pattern and volume of migrant labor movement between areas.
- d. Assist growers and workers in keeping informed regarding the main features of Federal and State agency programs relating to farm labor.

2. Assistance to farmers in forming and using farm labor associations: By encouraging and facilitating an organized group approach, the Extension Service can assist farmers in securing many advantages of cooperative group effort such as:

- a. Improved labor relations and employee relations.
- b. Better housing at lower cost.
- c. Better day-to-day utilization of workers - more continuous employment
- d. Simplified effective recruiting, record keeping and compliance.

- e. A more equitable sharing of many overhead expenses.
- f. Easier provision of facilities for better living.
- g. Better opportunities for effective training of growers and workers.
- h. Reduction in work days lost by giving more attention to work safety.

3. Training workers: There was general agreement that well-trained workers are more productive and better satisfied. This training on what-to-do and how-to-do-it is important at all times, but especially so in periods of labor shortages.

The committee believes that the Extension Service should expand its work in this area. In many instances, the greatest progress can be made by helping employers to an awareness of the values in worker training.

The Extension Service can give valuable assistance to growers and grower groups in the actual training of workers but the committee believes that this is a secondary responsibility.

4. Information on housing and living conditions: In this field there are a number of opportunities for effective educational work with growers and workers in developing adequate housing, sanitation, and family living conditions. These include the making available of housing plans, the facilitating of the exchange of information on housing as among farmers, and assistance to farmers in analyzing housing problems.

5. Community services: The committee feels that there should be a more general acknowledgment that seasonal workers are an integral part of many farming systems and rural communities. The Extension Service can help in bringing about this recognition which, if accomplished, would aid materially in making available the required community services.

C. Reference Material

There exists a substantial amount of reference and visual aid material on problems of utilizing the labor of seasonal workers and on Extension activities in this field. Included are items on farm labor outlook, labor requirements, training of workers, housing, farm labor associations, and farm labor programs. Much of this was developed by the States during the Farm Labor Program of 1943-47. Additional materials have been developed since then by the State Extension Services, Experiment Stations, and other State and Federal agencies.

A list of the most pertinent material, together with examples, will be of great value to the States in considering possible educational activities in labor utilization. It is suggested that the Federal Extension Service work with the States in developing such a reference list.

D. Needed Research

- 1. What are the labor requirements for specific crops and for specific tasks within crops? (a) per unit of production, (b) per area?
- 2. What are the best systems for accomplishing a task? Example: Many different systems of harvesting and grading potatoes are used on the east coast involving different containers and equipment. Is one system better than another?

3. What is adequate and satisfactory housing?
4. What influence, if any, does housing exert on recruitment, general satisfaction, and productivity of workers?
5. What do seasonal workers want - what things serve as incentives for continued productive work?
6. What makes for good farmer-worker relationships?
7. Why do some growers favor foreign workers over domestic?
8. How can more of the tasks with high labor requirements for so-called unskilled labor be eliminated?
9. What can be done to eliminate extreme peak labor needs on a farm and in a community?

III. Report of Committee on Labor
Efficiency in Marketing and Distribution

Labor Saving Practices Especially Important in
View of Mobilization Emergency

For years farmers and other groups as well have been interested in efficient utilization of labor in marketing and distribution as a means of reducing over-all marketing costs. Some research and some educational efforts have been directed at certain phases, but the amount of work done has not been commensurate with the scope and importance of the problem.

In view of the present defense mobilization emergency it is highly important that more emphasis and effort be directed toward saving labor in all segments of our economy and especially in those areas which offer opportunities for significant accomplishment.

In most instances, the largest single item of cost in marketing is labor. In marketing many products labor cost makes up over 50 percent of the total cost. Consequently one of the most fertile fields for reducing marketing costs in the long run, as well as to save labor for the mobilization effort now, lies in making labor more productive.

Although more research in the field is needed, a sufficient number of studies have been made to show many possibilities for reducing labor requirements in the marketing and distribution of farm products. In many marketing operations it is possible to make significant savings in labor without building new facilities or buying new equipment. It can be done by simply using, in the most effective manner, the facilities, equipment and manpower already available. When individual market operations are studied carefully by use of time and motion study techniques, ways can often be discovered to make tremendous savings in labor requirements for doing the job. Opportunities for significant savings exist throughout the marketing process, including assembling at shipping point, transporting, wholesaling, warehousing, processing and retailing.

Time for Action Now

There is no need to wait for more research to be done on some of these phases. Many firms and marketing agencies have not yet adopted a number of practices that have proven to be labor saving. If significant results are to be obtained to help the mobilization effort, immediate steps should be taken to set up educational activities, demonstrations, etc., aimed at speeding up the rate of adoption of labor saving practices already found to be sound.

Extension workers at the Federal, State and county levels should review research findings in this field, make observations and contacts with the trade - shippers, truckers, processors, warehousemen, wholesalers and retailers - and jointly, try to organize effective educational programs aimed at saving labor for the emergency. At the same time they will be doing more effective work on the long-time objective of increasing the efficiency of marketing as a whole.

The following paragraphs contain some examples of specific areas of work and ways to proceed:

What are the opportunities for labor saving in marketing?

Commercial agencies in marketing will be generally receptive to ideas at this time. They will be facing a labor shortage problem. The tight labor market should also strengthen labor and management cooperation.

1. Types of labor savings that can be made in marketing -

- a. Examination of services now being rendered: Cut out those that are unnecessary and consolidate the essential services. To illustrate - reducing overlapping and duplication in assembly. The products of several small producers can be consolidated into one truck load, rather than each one making a separate trip to market. A similar thing applies on the side of delivery.
- b. Methods improvement: Improving plant design and layout in processing, warehousing, wholesale and retail stores. Motion and time study analyses to improve performance of operations. Greatest savings may require new or improved equipment or facilities, but substantial savings can usually be made through better use of existing equipment.

To illustrate, from recent PMA reports: 40 percent increase in productivity in labor is possible through improved materials handling in fruit and vegetable warehouse operations, using only existing equipment; substantially larger savings have been attained with new equipment.

The improved check-out counter in retail grocery stores developed by PMA in cooperation with the retail food industry makes possible a 38-percent increase in the number of orders handled per man per hour.

Repackaging of fresh produce is estimated to have saved 17 million man hours in 1950 on the 3 to 4 billion pounds of produce prepackaged. It also reduced food spoilage and brought substantial savings in transportation as contrasted with conventional handling.

- c. The employee's attitude toward his job: Productivity can be greatly increased if desirable attitudes can be developed on the part of employees toward their work. This includes getting them to put more effort into the job and turning out more work. If their interest in work improvement can be developed they can make an important contribution to the improvement of work methods themselves. In addition, proper training is essential if the benefits of improved methods and equipment are to be realized.

2. Avoidance of unwise attempts to save labor -

With marketing agencies faced with reduced labor supply, it will be important to protect the maintenance of quality and other types of services that we consider important from the standpoint of agriculture. We should help them to make sure that they cut out first the unnecessary services and frills. We should also help them avoid cutting out services at one stage in marketing which will only have the result of increasing the labor requirements at other stages of the marketing system. We should also emphasize that foods and other farm products are the embodiment of large amounts of labor, so that the curtailment of services that results in waste and spoilage of these commodities is actually wasteful of labor as a whole.

It would be an unwise saving of labor for example, if ripe peaches were not placed under refrigeration when necessary to insure their delivery in good condition to consumers. Such false economy in labor at one point often results in an unusual need for labor elsewhere, as in this case, the extra sorting of the peaches in order to salvage the salable fruit.

3. Appealing to the interest of commercial marketing agencies -

The commercial operator is interested in improving his labor efficiency and other operations primarily because it is his job and his income. He must be approached from this standpoint if we are to interest him. He is not likely to be interested in changing his operations in any respect merely because such changes will be a good thing for agriculture. This means that Extension personnel dealing with commercial marketing agencies must talk their language. To do this the Extension worker must have a background of experience and training in the field of marketing and a sympathetic understanding of the viewpoint of the commercial operator. An effective approach to these agencies can be made through their trade associations and commercial organizations that have contact with them. Commercial concerns can be counted on to aid Extension in developing effective programs in this field.

Suggested Extension Activities

Educational work on labor utilization in the channels of trade will vary from State to State depending on the particular problems of each State. Some problems will need to be approached on a county or trade area basis, others will need to be considered on a State-wide basis, while still others must be handled on a regional basis.

Trade groups that make up the food industry are generally highly organized. Extension programs should make full use of these organizations.

The need for Extension to bring its educational forces to bear on the problems of labor utilization in marketing has long been recognized. The current emergency emphasizes the critical nature of these problems, and points up the need to accelerate this educational program.

Obviously Extension can be effective in this direction only if the type of work involved receives encouragement and good planning. It may require some reduction or even relinquishment of other work. State specialists and county agents cannot be expected to undertake a vigorous program in this field while continuing to carry a full load of other Extension work. Some additions to the present staff, reassignment of duties in some cases, and special training of workers are all needed.

It is recommended that the Federal office of the Cooperative Extension Service provide leadership in assembling the results of market research. These results should be made available in such a form that they will be most useful to State and county Extension workers in developing educational work along the following lines:

1. Assembling:

Labor utilization problems are primarily those of loading, duplicate and overlapping routes, and hauling. One educational activity might be to take present information regarding duplicate and overlapping routes in the hauling of such perishables as milk, eggs, vegetables, both fresh and for canning, and apply this information to possible savings of labor and materials. Another would be to develop an extension program designed to promote the timing of deliveries of farm products to assembly plants in such a way as to obtain maximum utilization of farm and processing plant workers.

2. Processing:

Productivity and the quality of the product of the processing industry are greatly dependent upon proper organization of work operations in the plant. Broiler dressing plants, milk plants, egg grading and packing plants, and fruit and vegetable packing sheds are examples of processing where much information is known or rapidly becoming available and can be used in educational programs.

3. Transportation:

Problems of labor utilization in transportation relate primarily to loading and unloading operations. Research results on the use of pallets and jacks is sufficient to support a strong extension program on efficient use of labor in loading and unloading.

4. Warehousing:

Problems of labor utilization in warehousing are largely those of the movement and placement of goods. Principles of efficient moving operations have been developed through research sufficiently to support an educational program in areas where warehouses are located. Extension work with warehousemen can be done most efficiently on a State or regional basis.

5. Retailing:

Labor utilization in retailer operations include movement of goods within the store, storing, shelving and displaying merchandise and check-out. Recently in-

formation has become available on the efficient use of labor in these operations. Retail stores are a part of the local community and as such can be included in the local county program, if strong leadership and assistance is provided by the State office. Opportunities for Extension work are best in counties which have towns of 10,000 to 100,000 population. In large cities a city-wide program would prove to be a full-time job for one or more workers.

Materials Available

There are many more materials for Extension educational work in marketing than is realized. A wealth of information is available in the form of:

- a. Cost studies where labor is a big item.
- b. Transportation studies such as routing studies, labor saving in delivery, etc.
- c. The Pace Report which is a summary of U.S.D.A. research results with a particular emphasis on marketing.
- d. "Educational Materials Catalog for Use with Food Retailers" which itemizes educational background materials available from Government and industry sources.
- e. Time and motion studies from industry and other sources that provide many facts that are useful in the saving of time and labor in the marketing process.
- f. Three studies made by PMA which relate specifically to the utilization of labor and equipment used in marketing of farm products are:
 - (1) The Check-Out Operation in Self-Service Retail Food Stores.
 - (2) How Fresh Fruit and Vegetable Distributors Can Get More Out of Their Materials and Handling Equipment.
 - (3) Receiving, Warehousing, Marking and Shelf Stocking of Merchandise at Retail Level.

Much of this basic research material, however, is not in an educational form and is broad and not related to specific jobs. Our major job is to pull this material together and then translate it into usable, educational form. The U.S.D.A. central project file has much of this material and there is an RMA project which is specifically designed to translate this material into useful, educational form.

The big job is to turn this material into a form so that the county agents, State specialists and others can use it in an approach to particular marketing problems.

Research Needed

As in any new field, additional research is needed. Much of this will have to develop from the needs of a particular State. Of general interest are:

- a. Cost studies that go further in showing how labor and labor costs can be reduced, expressed in units as well as in dollars.
- b. Research on the over-all handling costs from producer through to and including the retailer.
- c. The effects on quality when services are eliminated or "What are the necessary services?"
- d. Mechanical and physical facilities designed to reduce costs.

PROGRAM

LABOR UTILIZATION CONFERENCE

Extension Service - U. S. Department of Agriculture
Washington, D. C. - March 7-9, 1951

Wednesday Morning

Room 5042 - South Building

Chairman, L. M. Vaughan

- 9:30 Opening Remarks P. V. Kepner
- 10:00 Responsibilities of U.S.D.A. Concerning
Agricultural Manpower E. J. Overby
- 10:30 Recess
- 10:45 Important Differences in the Labor Situation Now
and Prior to World War II L. J. Ducoff, BAE
G. T. Barton, BAE
- 11:00 Comments on State and County Situations H. B. Howell, Iowa
Harold Ward, Ohio
P. L. Putnam, Conn.
L. B. Wilkins, Va.
- General Discussion
- 12:30 Adjournment.

Wednesday Afternoon

Room 5042 - South Building

Chairman, H. M. Dixon

- 2:00 Current Review of Research Background for an
Educational Program on Labor Utilization L. S. Hardin, Ind.
- 2:30 Comments and Discussion G. B. Byers, Ky.
L. H. Brown, Mich.
W. C. Crow, PMA
H. G. Hamilton, Fla.
- 3:30 Suggestions for Consideration in Developing an
Educational Program on Labor Utilization L. M. Vaughan
- 4:15 Assignment to Committees
- I. Labor Efficiency on the Farm
- II. Efficient Utilization of Seasonal Labor
- III. Labor Efficiency in Marketing and Distribution
- 4:30 Adjournment.

Thursday Morning

9:00 Committee Meetings

Committee I. Room 201 Administration
Committee II. Room 5304 South Building
Committee III. Room 5042 South Building

Thursday Afternoon

Room 5042 - South Building

Chairman, Virgil Gilman

- 1:30 Brief Progress Reports on Committee Work
2:00 Some Pointers on Publicity and Visual Aids Carl Hancock, Ark.
2:30 Continuation of Committee Sessions.

Friday Morning

..... Room 5042 - South Building

Chairman, L. M. Schruben

- 9:30 Discussion of Committee Report No. I
10:15 Recess
10:25 Discussion of Committee Report No. II
11:10 Recess
11:20 Discussion of Committee Report No. III
12:00 Closing Remarks M. L. Wilson
12:15 Adjournment.

Friday Afternoon

- 2:00 Special session of State Extension Representatives to consider the development of State and County Programs.